

Appl. No. 10/813,879
 Reply to Final Office Action of September 7, 2005

AMENDMENTS TO THE CLAIMS

Please amend the claims without prejudice or disclaimer to read as follows:

1 (currently amended). A method of processing a user input received on a capacitive touch sensor pad including a matrix of X and Y conductors, the method comprising the steps of:

developing capacitance profiles in one of an X direction and a Y direction from said matrix of X and Y conductors; said capacitance profiles identifying a simultaneous presence of at least one user input objects on said capacitive touch sensor pad;

extending said capacitance profiles to determine ~~developing~~ an occurrence of a single gesture resulting from the simultaneous presence of the at least two user input objects through an ~~extension~~ of said capacitance profiles; and

indicating the occurrence of said single gesture resulting from said simultaneous presence of the at least two user input objects.

2 (previously presented). The method of claim 1 wherein said single gesture is indicated by a signal representing a simulated mouse button click.

3 (original). The method of claim 1 wherein developing capacitance profiles comprises developing capacitance profiles in both said X and Y directions from said matrix of X and Y conductors.

4 (currently amended). A capacitive sensor comprising:
 a matrix of X and Y conductors;

sensing circuitry coupled to each of said X and Y conductors and configured to generate outputs based on the capacitance of said X and Y conductors; and

an arithmetic unit coupled to said sensing circuitry and configured to develop a first capacitance profile in an X direction in response to said outputs of said sensing circuitry;

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end to examine said first capacitance profile to determine an occurrence of a single gesture resulting from the simultaneous proximity of at least two input objects to said matrix of X and Y conductors through an examination of said first capacitance profile.

5 (original) The capacitive sensor of claim 4 wherein said sensing circuitry is configured to drive said X conductors simultaneously and to drive said Y conductors simultaneously wherein said X conductors are driven separately from said Y conductors.

6 (original) The capacitive sensor of claim 4 wherein said ~~examine~~ unit is configured to develop a second capacitance profile in a Y direction in response to said outputs of said sensing circuitry.

7 (original) The capacitive sensor of claim 4 wherein said ~~examine~~ unit is configured to differentiate between an application of a single object and an application of multiple objects to the capacitive sensor.

8 (original) The method of claim 1 wherein the at least two input objects are fingers.

9 (original) The capacitive sensor of claim 4 wherein the at least two input objects are fingers.

10 (currently amended) An input device comprising:
a matrix of conductors;

sensing circuitry coupled to each of said conductors and configured to generate outputs based on the capacitance of said conductors; and

an arithmetic unit coupled to said sensing circuitry and configured to develop at least one capacitance profile in response to said outputs of said sensing circuitry, to examine said at least one capacitance profile to determine an occurrence of a single gesture resulting from the simultaneous proximity of at least two input objects to said matrix of conductors

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Figure 1 is a block diagram of a device for detecting and responding to a gesture, and to indicate the occurrence of said single gesture resulting from said at least two input objects.

11 (new). The input device of claim 10 wherein the single gesture is indicated by a signal representing a simulated mouse action.

12 (new). The input device of claim 11 wherein the simulated mouse action comprises scrolling.

13 (new). The input device of claim 11 wherein the simulated mouse action comprises a button press.

14 (new). The input device of claim 10 wherein the single gesture is a scrolling gesture resulting from the application of more than one finger on the touchpad.

15 (new). The method of claim 1 wherein the single gesture is indicated by a signal representing a simulated mouse action.

16 (new). The method of claim 15 wherein the simulated mouse action comprises scrolling.

17 (new). The method of claim 15 wherein the simulated mouse action comprises a button press.

18 (new). The method of claim 11 wherein the single gesture is a scrolling gesture resulting from the application of more than one finger on the touchpad.